

## December Members' Meetings

### Dates & Times

Matinee 2:30 p.m., Wednesday,  
December 8, 1982  
Evenings, 8:00 p.m. Wednesday and  
Thursday, December 8 and 9, 1982

### Place

May Treat Morrison Auditorium

### Speaker

Dr. Robert Drewes

### Subject

"The Christmas Frog"

To the great majority of people, a frog is a frog is a frog.

Students learn early that frogs lay eggs in water, the eggs hatch into tadpoles, which become froglets, etc.; that frogs don't like heat and they stay in or around water so they won't dry up. While these facts apply to many of our frog friends, over the past two decades some rather exciting frog discoveries have been made adding some strange exceptions to basic frog rules. Some of the research leading to these discoveries has been done by scientists at the Academy of Sciences and their colleagues, and one of those researchers is our speaker for December, Dr. Robert Drewes, of the Academy's Herpetology Department.

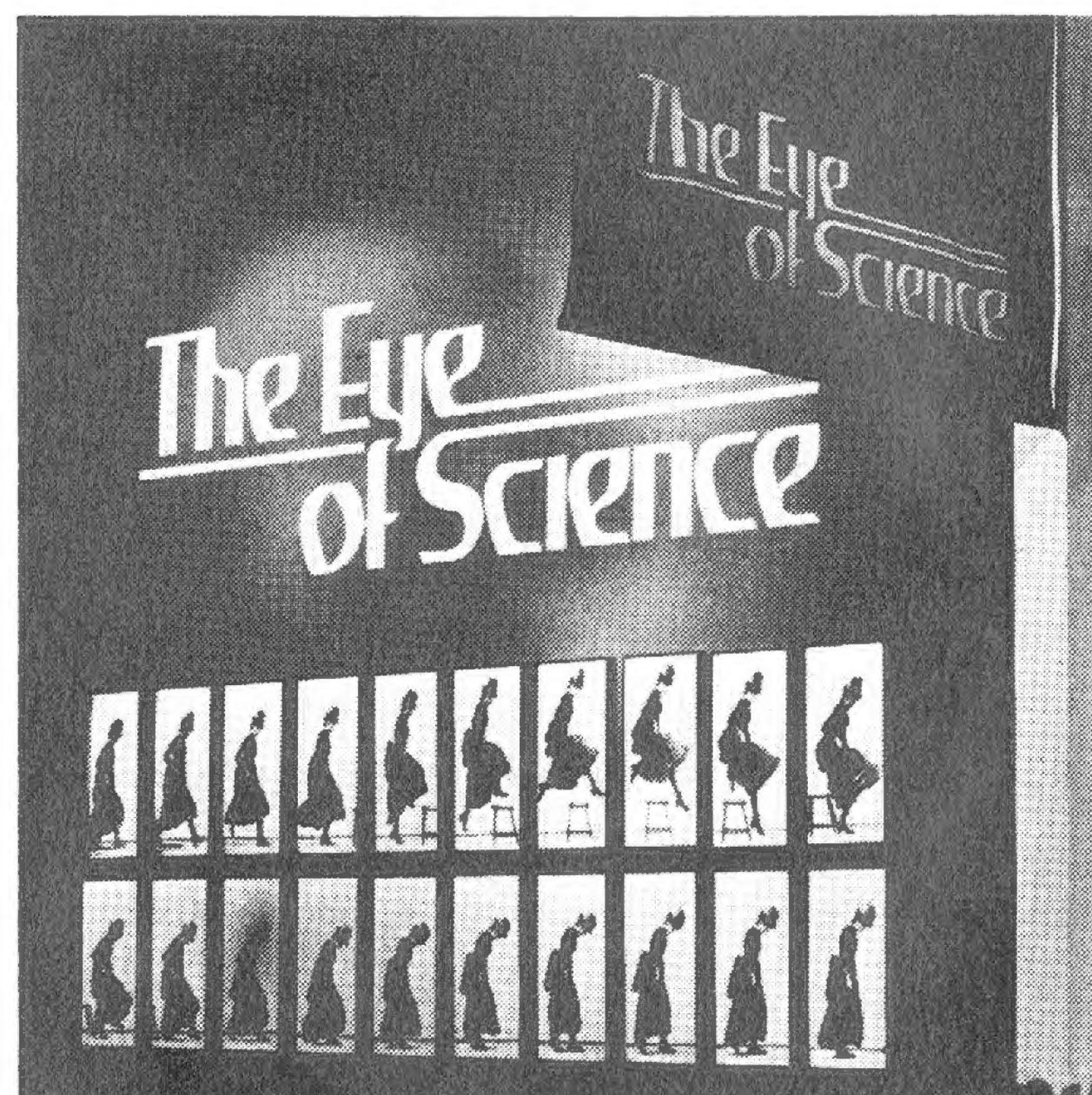
Dr. Drewes has spent over 28 months of the last 13 years in Africa in pursuit of treefrogs: recording their voices and gathering data on their physiology. At this science-oriented lecture he will share some of these remarkable new discoveries, describe their evolutionary significance and explain the Academy's role in the field of amphibian research.

Many Academy members know Bob Drewes through previous members' meetings, classes, open house and his outstanding tours to Africa. Mark your calendars now for the December 8 or 9 for a new look at some old acquaintances!

As usual your membership card will admit you through the Cowell Hall or Wattis Hall entrances for the matinee presentation and through the Cowell Hall entrance for the evening programs.



## Special Exhibits



**The Eye of Science** continues in the McBean-Peterson Galleries through January 30. Organized by the Science Museum of Minnesota, the exhibition includes a series of stop-action photos of "Woman Jumping Chair" by Eadweard Muybridge (pictured above) and over 100 photographs showing the many sophisticated techniques of "picture taking" that have given scientists in all fields a new way of looking at their world.

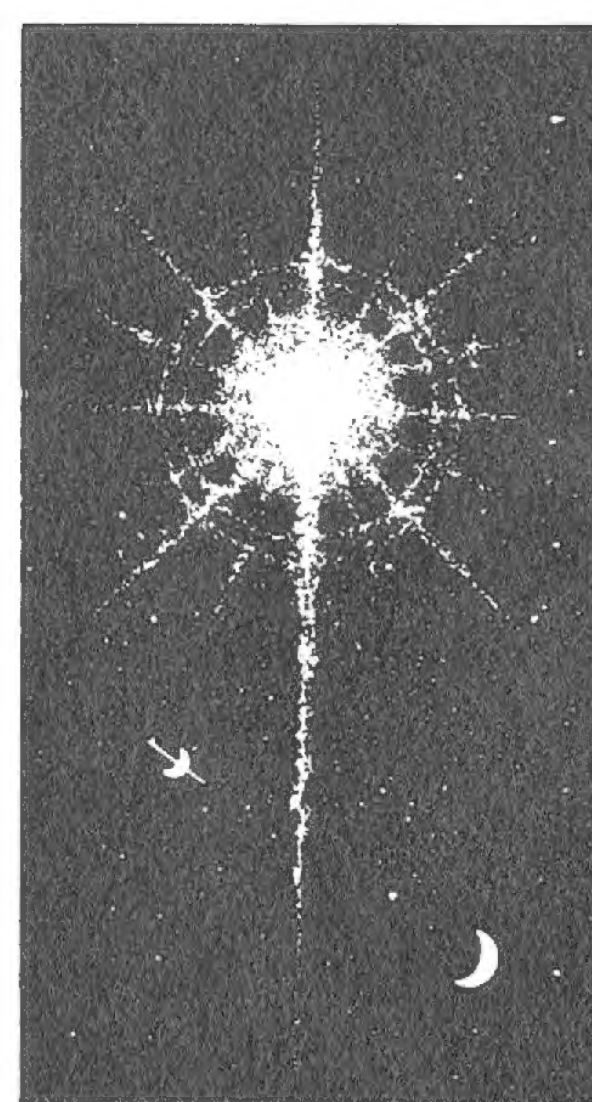
As an optical instrument, the human eye has astounding capacities and some frustrating limitations, but with the aid of photographic techniques such as x-ray, stop-action and time-lapse, ultrasound, and computer enhanced imagery (such as CAT scans and the Voyager pictures from Saturn), much that was previously invisible is now visible.

Other continuing exhibits include **The Heritage of Islam** (through January 2); **The Wildlands and Wildlife of California**, a photographic tour of the Golden State by Tupper Ansel Blake (through January 31); **Hopi Kachina: Spirit of Life**, the Academy's own exhibit about the oldest surviving culture of North America; and **Blue Water Plankton**, photos of some of the nearly invisible life forms of the open ocean (through January 6).

For the afternoon meeting you may be asked to show your membership card once again at the auditorium door for admission.

**Sneak Preview:** On January 12 and 13, members will have an opportunity to hear Dr. Richard Eakin, Professor Emeritus of Zoology, University of California, Berkeley.

## Morrison Planetarium



Join us for our 29th annual holiday favorite **The Christmas Star** as we play detectives in time and try a NEW approach to solve the puzzle. What was this "star" that heralded the birth of Jesus of Nazareth nearly 2,000 years ago? Was it a comet? A supernova? A grouping of planets?

**The Christmas Star** opens December 3 and will continue through

January 2, 1983. Showtimes are Monday through Friday at 2:00 p.m., Wednesday and Thursday evenings at 7:30, weekends at 12:30, 2:00 and 3:30 p.m., December 20 through 24 at 12:30, 2:00, and 3:30 p.m. Extra holiday shows on December 27 through 31 at 11:00 a.m., 12:30, 2:00 and 3:30 p.m.

**NOTE: There are no shows Christmas Day.**

*The planetarium will be closed November 29 through December 2 to prepare for "The Christmas Star" and January 3 through 6 to prepare for a new exciting show entitled "Celestial Serendipity" opening on January 7, 1983.*

Take a look at "what's up" in the current night sky over San Francisco at **Exploring the Skies of the Season**, every Saturday and Sunday at 11:00 a.m.

Members may use their complimentary passes for all of these shows.

## Light Shows

Add more dazzle to the holiday season with a visit to one of Eye See the Light Show, Inc's fabulous light shows.

**Lights Fantastic:** Saturday and Sunday at 5:00 p.m.

**Rock Stars:** Thursday at 9:00 p.m., Friday and Saturday at 9:00 and 10:30 p.m., Sunday at 9:00 p.m.

**The War of the Worlds:** Friday through Sunday at 7:30 p.m.

For your enjoyment extra holiday shows have been added December 20 through 31. Please call 387-6300 or 6301 for more information and exact shows titles and times. Tickets are available through BASS at 835-3849. Admission is \$4.00 for evening



presentations and \$3.50 for matinees (5:00 p.m. only). Admission for children 10 and under and for senior citizens is \$2.00.

**PLEASE NOTE:** *There will be no shows on Christmas Eve, Christmas Day and January 1 through 5.*

### EARTHQUAKE EXPERT IS NEW PRESIDENT OF ACADEMY

Dr. Bruce A. Bolt, Director of the Seismographic Station at the University of California at Berkeley, has been elected President of the California Academy of Sciences in Golden Gate Park. The position, always filled by a scientific member of the Academy's Board of Trustees, was previously held by Dr. F. Clark Howell, the distinguished Professor of Anthropology also from U.C. Berkeley.

Dr. James C. Kelley, Dean of the School of Science at San Francisco State University was elected Vice President.

Both Bolt and Kelley feel the Academy should extend its reach of science education to a broader public and have begun to pave the way to this goal by planning and participating in two recent programs: "Earthquake-Preparedness for Museums and Libraries," and "The Frontiers of Science" lecture series.

### Junior Academy

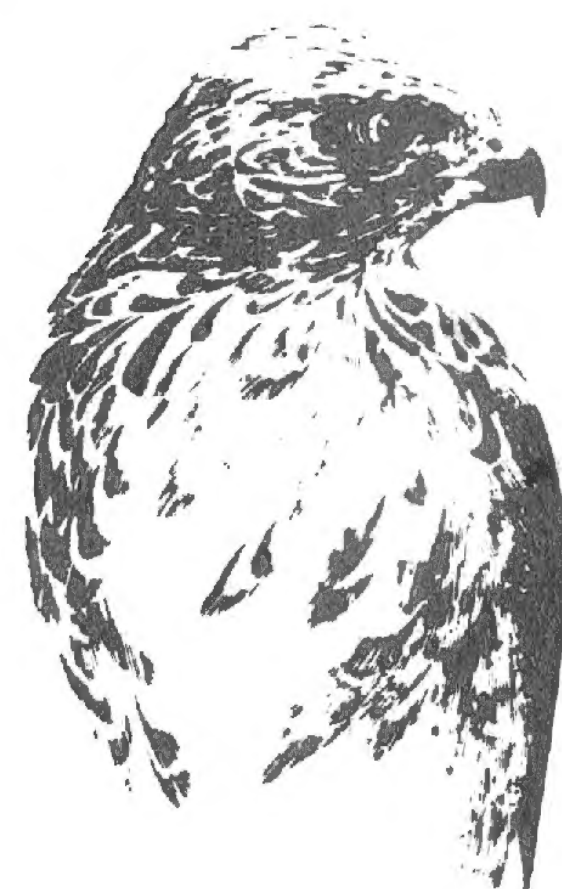
Enjoy a holiday treat! The Junior Academy is offering field trips from December 18 through January 2 for students 6 to 16 including a family whale watching trip! If you have a family membership your children automatically belong to the Junior Academy. Call the Junior Academy at 221-5100 ext. 221 for details.

### New Treats from Duchess

In addition to its regular menu the Academy cafeteria is now offering a selection of Deli sandwiches - meats, cheeses, tuna and turkey on a variety of breads. Next time you are here try some of these new delectables!

## The Dr. Barbara Sawyer Memorial Wildlife Conference on

# R A P T O R S



Saturday and Sunday  
February 5 and 6, 1983  
(with a special program on  
Friday evening, February 4)  
in the Morrison Auditorium  
California Academy of Sciences  
9 to 5 each day  
Admission:      Members \$15  
                     Non-Members \$20

This 7th Annual Wildlife Conference, sponsored by the California Academy of Sciences, The San Francisco Zoological Society and The Wildlife Rehabilitation Council, will consist of scientific presentations and workshops on raptors. Topics to be covered on a variety of birds of prey include captive breeding, rehabilitation, handling, housing, nutrition, veterinary techniques and infant care. Specific details will appear in your January Newsletter. Watch for it!

## Education and Travel

### BIOLOGICAL ILLUSTRATION

January 6 - February 17  
(7 Thursdays)  
7 - 10:00 p.m.  
Instructor: Dr. Chuck Stasek  
Cost: \$50 members, \$65 non-members

Students, ranging from those who have never drawn to those with previous drawing experience are introduced to the many forms and patterns of nature and develop their perception of natural form. The class uses pencil, pen and ink, coquille board, and scratch board as they learn the techniques of line and shadowing. A portion of each class is devoted to a critique session, providing necessary individual attention.

### WONDROUS WHALE WATCHING CRUISES

Three cruises available:  
Wednesday, January 19 11:00 a.m.  
Thursday, January 27 11:00 a.m.  
Friday, February 4 2:00 p.m.  
Leader: Izzy Szczepaniak, Biologist  
Cost: \$15 members, \$20 non-members  
includes cruise and instruction

Whales ahoy! Meet at Pillar Point as we cast off on a whale watching adventure to spot the majestic Gray Whales as they spy-hop and spout on their migration south to their breeding grounds. With the guidance of our biologist, we also hope to sight Pacific White-Sided Dolphins, Dall Porpoises, and perhaps even a Humpback Whale as they cavort in Pacific waters.

### Antarctica and the Falkland Islands

Two departure dates: December 21 and January 17

Attention adventurous travelers! Antarctica and the Falkland Islands are our destinations on two unique cruises aboard the *M.S. Lindblad Explorer*. Huge aggregations of penguins, albatross, terns and other birds, sea lions, fur seals, elephant seals, and porpoises await you on this spectacular journey. There will be opportunities to visit the research stations of Chile, Argentina and the American Palmar Station. On the January 17 voyage, Dr. John McCosker, Director of Steinhart Aquarium, will be on board to enhance what should be a truly remarkable experience! For information and a colorful brochure, please call the Academy Travel Office at (415) 221-5100.

### Baja California Circumnavigated

January 22 - February 4

The Academy's February 5th departure to Baja California with Dr. Luis Baptista is filled. However, we are pleased to announce a second departure under the leadership of Dr. Joseph Hall, professor of mammalogy, wildlife photographer and Fellow of the Academy of Sciences. Cruising aboard the comfortable *M.V. Northwest Explorer*, members will sail into the Sea of Cortez where they will see numerous birds, fishes and bizarre plants. Rounding the tip of the Peninsula, the boat will travel northward to the whale lagoons of the west coast for some "close encounters" with California gray whales and to the San Benitos Islands to view huge colonies of elephant seals.



Truly a naturalist's delight! Costs range from \$2650 - \$3680 plus air fare to San Diego. For information, call the Academy Travel Office at (415) 221-5100.

### **Ethiopia, Egypt and The Red Sea** March 6 - 29

The grandeur of ancient civilizations and a variety of contemporary cultures are the focus of this extraordinary tour, planned especially for Academy members. Picturesque Ethiopia is our first destination as we visit Addis Ababa, Lake Tana - source of the Blue Nile, and a village of Falashas, a distinct ethnic group who practice an archaic form of Judaism. We will also explore numerous architectural wonders before traveling to Egypt. Two days are spent in Cairo before boarding the *M.S. Lindblad Polaris* for a cruise through the Red Sea. Highlights include St. Catherine's Monastery-site of "The Burning Bush", the fabled rose-red city of Petra and the Gubal Islands. Snorkelers will enjoy the abundant marine life in the Gubal Islands and at Hurghada. Costs range from \$2970 to \$4540 plus air. For information, please call the Academy Travel Office at (415) 221-5100.

### **The Geology of the Grand Canyon** April 5 - April 9

This trip is filled, however you may receive a brochure or put your name on a waiting list by calling the Education/Travel Office at (415) 221-5100.

### **King Range Backpack** April 24 - 28

Northern California's King Range Beach is a remote and beautiful 24-mile stretch of pristine black sand. Academy members will hike the area, north to south, between the Mattole River and Shelter Cove. Encountering marine mammals, birds, intertidal life, coastal plants and wildflowers. Anyone capable of hiking five miles a day, carrying approximately 30 pounds in a backpack, can handle this trip. Cost is \$185 per person. For information, please call Focus On Nature at (707) 584-5154.

### **Belize for Scuba Divers** May 7 - 14

Some of the finest and most pristine dive sites in the Caribbean lie off the coast of Belize (formerly British Honduras), south of Mexico on the Yucatan Peninsula. Sixty

miles out to sea lies Lighthouse Reef which is inaccessible to commercial fishermen. There are dozens of dive sites where the top of the drop-off is a mere 30 feet below the surface, and the most exciting feature of the reef is the richness and profusion of its marine life. Divers will see groupers, snappers, turtles, eagle rays and hogfish. A highlight of this week-long underwater excursion will be a dive to explore caves where an ancient sea level has left giant stalactites and stalagmites. Led by an Academy scientist (to be announced), members will stay aboard the comfortable *Isla Mia*. All divers must be certified. Both day and night diving is unlimited. (This trip is limited to 14 persons). Cost is \$950 plus air fare. For information call See & Sea Travel at (415) 771-0077.

### **Spain and Morocco** May 14 - June 5

Members will enjoy a wealth of Islamic art history and architecture on this 23-day tour of Spain and Morocco. Planned in conjunction with the exhibit, "The Heritage of Islam", the tour will be led by Antony Hutt. Mr. Hutt, an Islamic scholar, has led numerous archaeological expeditions in the Middle East, and participated as a speaker in the Academy's "Heritage of Islam Lecture Series." Highlights of the tour will include the sights of Madrid, El Escorial, Segovia, Toledo, and the splendors of the Alhambra and the Alcazar. Some time will be spent in Cordoba and Seville in Andalucia, a region occupied by the Moors for more than eight centuries. Members will travel to Morocco to visit Rabat, Fez, Meknes, and will cross the Atlas Mountains to Erfoud, the gateway to the Sahara. The cost is \$2500 per person for land arrangements, and \$908 for air fare. For information, please call Siemer & Hand Travel at (415) 788-7186.

### **Alaska** June 18 - July 3

Spectacular scenery and abundant wildlife await Academy members on this annual trip north to Alaska. A cruise to the Columbia Glacier, several days at Camp Denali in the heart of Mt. McKinley National Park, a visit to the "Valley of Ten Thousand Smokes" and some time in Glacier Bay are but a few of the highlights of this popular members tour. Dr. David Kavanaugh, Chairman of the Department of Entomology, will lead this expedition. For information and a brochure, please call Siemer & Hand Travel at (415) 788-7186.

### **Dear Members:**

As my first year as Director of the Academy comes to a close I have been looking back over the list of events and programs that our members have attended and it is a rich and varied list that I hope will become more exciting in 1983.

Members' meetings have covered topics ranging from the heights of the Himalayas to the depths of tropical coral reefs. Academy scientists like John McCosker and Bob Drewes have shared their adventures and research projects on great white sharks and frogs, and one of our favorite speakers, David Cavagnaro, shared the autumnal beauty of Canada in his stunning presentation in June. Special lectures and symposia covered topics from human evolution to making your garden grow, and popular authors such as Jean Auel and Peter Benchley made their favorite subjects (early woman and graceful manta rays) come alive for our audiences.

Exhibits also touched the many diverse interests of our members. Ansel Adams photographs, many never before seen, came to the Academy, and the arts and sciences of Islamic cultures from around the world took over one of our halls. (This exhibit will be here through this month, by the way). Photographs by one of California's leading photographers, Tupper Ansel Blake, and high-tech photos that show scientifically important ways of "looking" at the previously unseen are two more exhibits which both educate and please the eye.

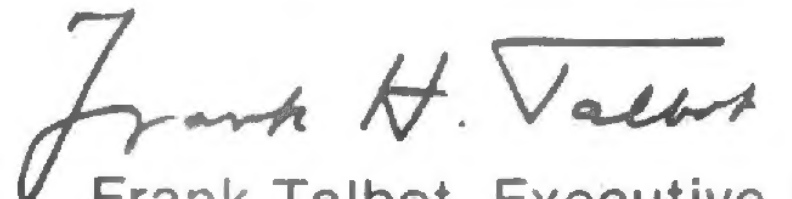
The Morrison Planetarium, whose shows are free to our members, have taught people about "Cosmic Catastrophes," and explored the possibility of extraterrestrial life in the sky show "Are We Alone?" Steinhart Aquarium continues to delight and enlighten our members about the diversity of marine and aquatic life on our planet.

And Open House. Like many of you, this was my first Members' Open House and I had to be dragged out at 10 o'clock with many of you. To see the behind-the-scenes activities of our research departments, to feed the dolphins and seals, and to meet the many members of the Academy staff seems worth the price of admission even without all the other benefits of membership.

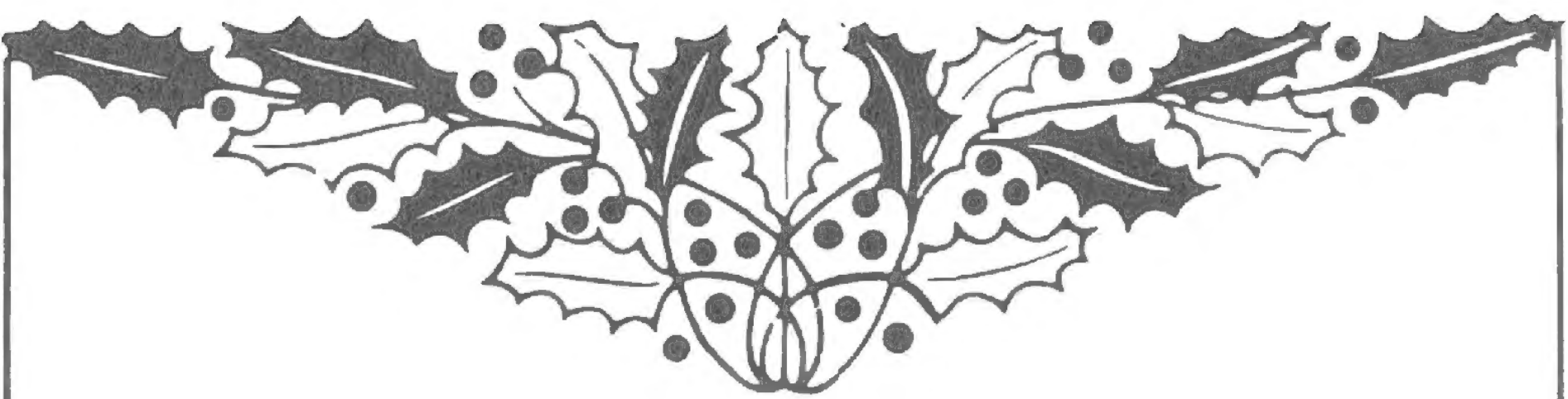
In 1983 we look forward to many more exciting programs, classes and travel opportunities, both locally and abroad, and *Pacific Discovery* will begin a new era in January when it comes out in color! In March members will have a special evening in the Imogen Cunningham exhibition and will be able to take part once again in the Annual Members' Open House, tentatively set for the spring to take advantage of daylight saving hours.

Think back. Aren't many of the experiences worth sharing with a friend or another family? The Academy is about to start a membership campaign to double its membership in 1983, and you can help. Give the gift of fun and education that lasts all year long... a membership in the California Academy of Sciences.

Happy Holidays!

  
Frank Talbot, Executive Director





Give the gift of fun  
and education that  
lasts all year long

**A Membership in the  
California Academy of Sciences**

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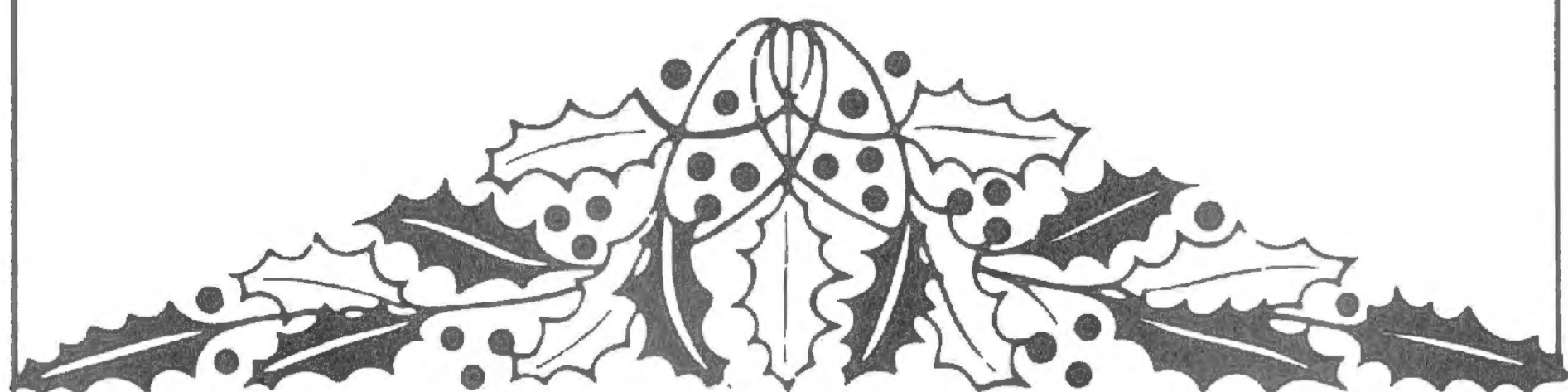
Family Membership \$30.00

Contributing Membership \$50.00

Sustaining Membership \$100.00

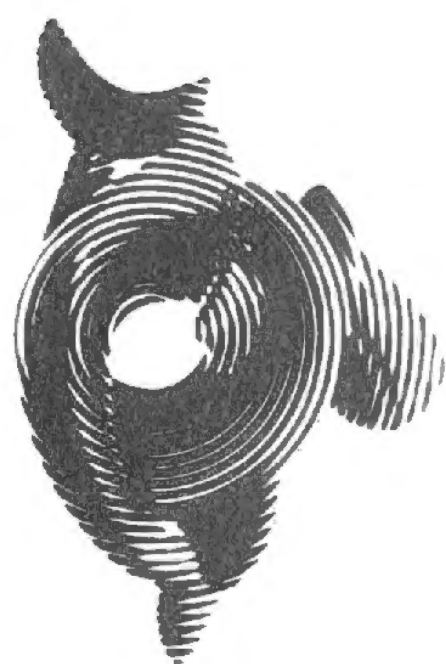
Friends of the Academy \$1000.00

Dues include \$7.50 for Pacific Discovery subscription



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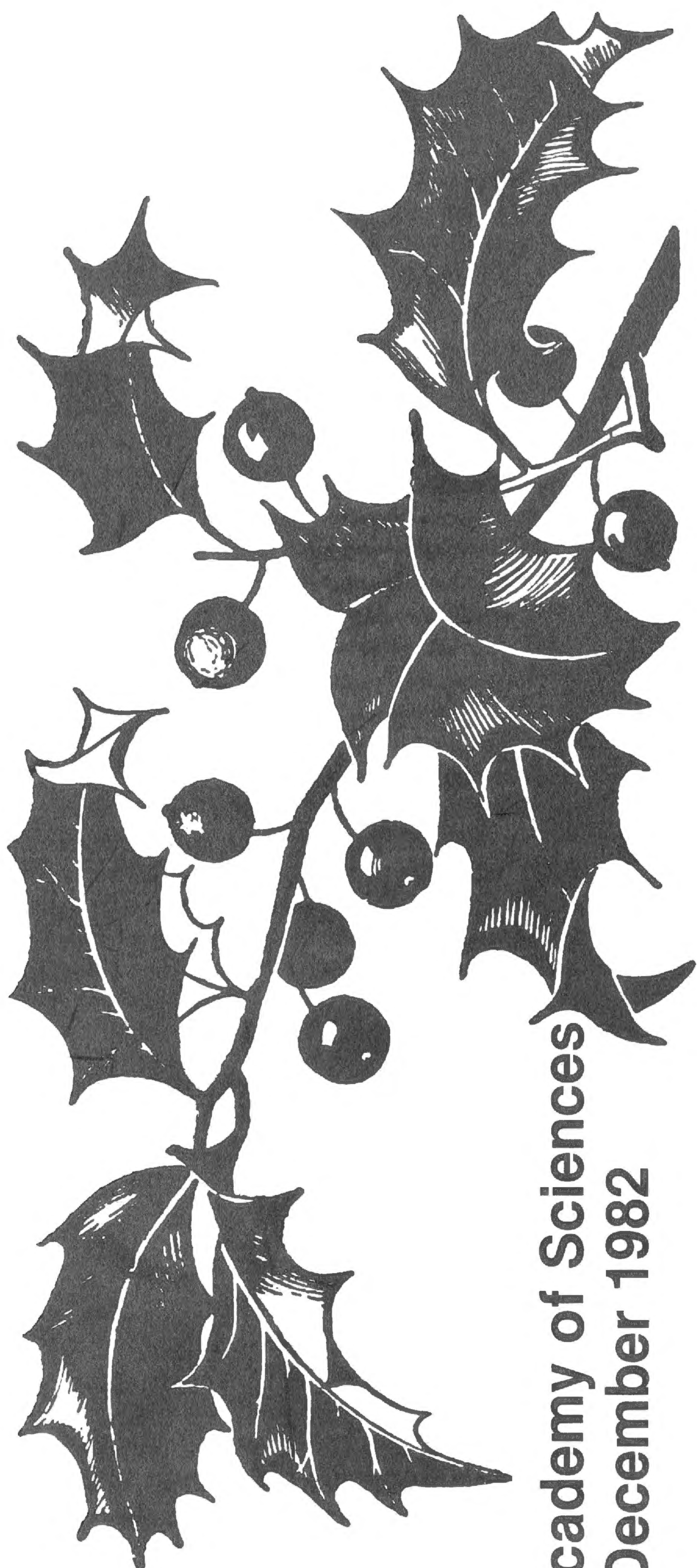
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